From:	ANDERSON Jim M
To:	Eric Blischke/R10/USEPA/US@EPA; Kristine Koch/R10/USEPA/US@EPA
Cc:	Rene Fuentes/R10/USEPA/US@EPA; MCCLINCY Matt
Subject:	Table 5.1-2
Date:	10/17/2008 01:15 PM

Eric & Kristine,

Here's my follow-thru on the action items from our 10/16 mtg re: Table 5.1-2. A couple of notes to our team:

1) I added text recommending the LWG try to differentiate between significant & not significant pathways (item 4 below).

2) I our mtg yesterday I think I volunteered to go thru either select pathways for the 55-some sites listed in the LWG's 7/25/08 e-mail or all the pathways for the 78-some sites listed on Table 5.1-2…, & recommend classification for all historic & current pathways for all those sites. What was I thinking? In the text below, I think I lay out a pretty clear path for the LWG to do this work…, plus I advise that EPA/DEQ/partners would be willing to have a working mtg with the LWG to classify the pathways at all sites according to the new suggested presentation format. Eric, I did take some notes yesterday re: how we would classify certain pathways at certain sites…, & if you want that information, call or reply.

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

Draft EPA comments to LWG re: Table 5.1-2

As part of EPA's 1/15/08 review of part of the LWG's 2/21/07 "*Comprehensive Round 2 Site Characterization Summary and Data Gaps Analysis Report*" we provided comments regarding Section 5 (*Identification of Sources*) and in particular upland sources and Table 5.1-2. The LWG responded to EPA's 1/15/08 comments on Table 5.1-2 (Comments 127-175) in a 7/25/08 e-mail. EPA presents our comments on the LWG's 7/25 response below.

EPA comments are divided into two groups. 1st, we want to suggest a revised presentation format for the LWG to use to portray this source information in the draft RI/BRA report due in 4/09. 2nd, we want to specifically comment on the LWG's 7/25 response to our 1/15 comments.

Revised presentation format

Information contained in Section 5, and in particular in Table 5.1-2 is crucial to our understanding of the connection of upland sources and contaminant transport pathways to in-river contamination. While DEQ is responsible for upland source control; the LWG , as part of the in-water RI/FS, is responsible to evaluate in-river contamination and, if

appropriate, make recommendations to EPA or DEQ if the need for further investigation or source control is identified.

EPA considers the general format the LWG used in the Table 5.1-2 in the Round 2 report is useful and effective, but should be modified to better portray an understanding of upland sources and transport pathways. EPA recommended table modifications are presented as follows:

1) Present information on both the current and historic contaminant transport pathways for each site (source) listed on the table. For example, EPA would portray **ACF Industries** (the 1st site in Table 5.1-2) as follows:

Historic Groundwater Pathway – "c" or "b"

Current Groundwater Pathway- "d"

Historic Stormwater/Wastewater Pathway- "a" or "b"

Current Stormwater/Wastewater Pathway- "d"

Historic Overland Transport- "d"

Current Overland Transport- "d"

Historic Riverbank Erosion- N/A

Current Riverbank Erosion- N/A

Historic Overwater Discharge- N/A

To further illustrate EPA recommendation, here's what we would recommend for a different type of site, **Arkema**:

Historic Groundwater Pathway – "a"

Current Groundwater Pathway- "a"

Historic Stormwater/Wastewater Pathway- "a"

Current Stormwater/Wastewater Pathway- "a"

Historic Overland Transport- "c"

Current Overland Transport- "c"

Historic Riverbank Erosion- "a"

Current Riverbank Erosion- "a"

Historic Overwater Discharge- "c" or "b"

EPA realizes classifying historic pathways will be difficult, but we urge the LWG to use their site summary data and DEQ project information to be as complete and accurate as possible.

2) You'll notice that for the two examples above, EPA did not include notes regarding the Current Overwater Pathway. The overwater pathway is different than the other pathways in that there's generally not a source, but rather activities (e.g., spills or releases) that potentially initiate the transport pathway. EPA recommends the LWG consider the types of current overwater structures, activities, and safety controls (e.g., BMPs, SPCC, containment, etc) at sites and describe the current status and potential threat to the river.

3) EPA urges the LWG to remember the information portrayed in the table should reflect our shared understanding of the contaminant transport pathway, not the release. Perhaps this concept can best be illustrated using two examples. 1st, if we clearly understand that an historic release from a UST at a site resulted in an historically complete transport pathway to the river, we would expect the table to portray that historic pathway as "a". Furthermore, if the groundwater pathway were still complete today, we would expect the table to portray that current pathway as "a". 2nd, if the UST and adjacent contaminated soil were removed (i.e., the contaminant source was removed), but contaminated groundwater was still migrating to the river, we'd still consider both the historic and current pathways to be "a". Furthermore, in this 2nd example, we'd continue to consider the pathway complete until the pathway was eliminated through treatment, controlled, or achieving acceptable risk levels through natural attenuation.

Another example will perhaps add even more clarity to the issue. Let's consider a site where an historic release contaminated upland soil. Let's suppose: 1) the contaminated upland soil was transported to a stormwater system, 2) that contaminated soil accumulated in the stormwater lines, & 3) the soil contamination was cleaned-up, but the accumulated sediment in the stormwater lines remained in-place. The release was historic, but we would expect the table to portray the stormwater pathway as "a", "b", or "c" for Historic & "a", "b", or "c" for Current.

4) EPA also recommends the LWG include a table notation that designates a pathway as complete (i.e., concentrations exceeding SLVs), but not significant. This will be difficult because we don't have a bright line defining significant vs insignificant. However, given the conservative nature of the Joint Source Control Strategy SLVs, we believe it's important to try to differentiate between significant and not significant sources.

EPA, DEQ, and our partners will be very willing to convene a working meeting with the LWG to help classify all the sites and pathways for the draft RI/BRA report. Please contact us to set this meeting up.

EPA's Comments on the LWG's 7/08 response to EPA's 1/08 comments on Table 5.1-2

Eric, here's where you & Kristine can insert EPA's comments Chip sent to us in his 10/1 e-mail. I suggest you add a note to the LWG as a precursor, advising them that while these are EPA's comments, many of these comments will be superseded by the new presentation format we're laying out above.

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Marine Finance

Overland Runoff Pathway- I understand that EPA was concerned that residual soil contamination in the south part of the site had been covered with gravel, & that the gravel layer could be disturbed or eroded exposing soil contamination to possible transport to the river via overland runoff. Furthermore, EPA recommended classifying this pathway as "b" and "H?,C?". I reviewed project documents & discussed the site with Mark Pugh (DEQ's PM). The only area in the southern portion of the site with soil contamination exceeding SLVs was around samples SS-17 & SS-18. Both these areas were capped with up to 5-feet of imported fill & gravel, thus eliminating the potential for erosion or disturbance. See DEQ's 7/17/07 Source Control Decision for more detail.

Riverbank Erosion Pathway- I understand that EPA was concerned that riverbank erosion pathway was still open. 3 riverbank samples were collected during the site investigation (SS-9, SS-10, & SS-11). SS-9 had exceedances of As (13.3ppm), Cu (270ppm), & TBT (10ppb), but this area was capped with 6" of gravel & at least 4" of asphalt. Other than As in SS-11 (7.6ppm, with background being 7.0ppm), contaminant concentrations in neither SS-10 nor SS-11 exceeded JSCS SLVs.

XXXXXXXXXXXXXXXXXX

T1 South

Stormwater Pathway- I understand EPA was concerned that contaminated soil may have accumulated in the stormwater lines & whether DEQ had required line cleaning as part of the remedy/source control measure. We did not. Therefore, we would have to agree that the Historic stormwater pathway should "c" or perhaps "b" & the Current stormwater should be "c". However, given the relatively low initial soil contaminant concentrations, relatively limited footprint of contamination, the current in-place source control measures & the lack of adjacent elevated in-river sediment contamination…, this is likely not a significant pathway.

Jim Anderson

Manager, DEQ Portland Harbor Section

ph: 503.229.6825

fax: 503.229.6899

cell: 971.563.1434